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Peter F. Kilmartin, Attorney General

October 17, 2014

Ms. Luly Massaro, Clerk Public Utilities Commission 89 Jefferson Blvd. Warwick, RI 02889

Re: Docket Nos. 4520 and 4523

Dear Ms. Massaro,

Enclosed for filing on behalf of the Division of Public Utilities and Carriers, please find the revised testimony of Bruce R. Oliver in Docket Nos. 4520 and 4523. While the majority of the testimony and schedules are unchanged, based on further discussions with National Grid subsequent to the filing of the original testimony, the revisions reflect clarifications provided by National Grid. The primary revision is the elimination of the comment on page 5 of the original testimony that indicated that National Grid does not file a monthly GCR Deferred Gas Cost Balance Report with 12 months of actual data. This report is in fact filed and the noted observation required correction.

Additionally, there are minor revisions to the exhibits. Exhibit BRO-1 is revised to reflect the correction of dates. BRO-2 corrects the calculation of some of the percentage changes that had incorrect cell references, as well as the date in footnote 2. Exhibit BRO-3 corrects a minor typo.

The Division requests that the Commission substitute the accompanying revised testimony for the testimony filed on October 6, 2014 and apologizes for any inconvenience the latter filing may have caused.

Very truly yours,

Leon. Wola

Assistant Attorney General

BEFORE THE

PUBLIC UTILITIES COMMISSION OF THE STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

IN THE MATTER OF		
The National Grid Annual Gas Cost)	
Recovery Charge Filing and the Filing)	Docket Nos. 4520 and 4523
And the National Grid Gas Customer)	

Choice Program

DIRECT TESTIMONY OF WITNESS BRUCE R. OLIVER

On Behalf of

The Division of Public Utilities and Carriers

Revised October 17, 2014

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Exhibits BRO-1 through BRO-7

1		I. INTRODUCTION
2		
3	Q.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE RECORD.
4	A.	My name is Bruce R. Oliver. My business address is 7103 Laketree Drive, Fairfax
5		Station, Virginia, 22039.
6		
7	Q.	BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?
8	A.	I am employed by Revilo Hill Associates, Inc., and serve as President of the firm. I
9		manage the firm's business and consulting activities, and I direct its preparation and
10		presentation of economic, utility planning, and policy analyses for our clients.
11		
12	Q.	ON WHOSE BEHALF DO YOU APPEAR IN THIS PROCEEDING?
13	A.	My testimony in this proceeding is presented on behalf of the Division of Public
14		Utilities and Carriers (hereinafter "the Division").
15		
16	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?
17	A.	This testimony addresses issues relating to the National Grid (or hereinafter "the
18		Company") 2014 Annual Gas Cost Recovery (GCR) filing that was made on
19		September 2, 2014 and the Supplemental Direct Testimony and schedules the
20		Company filed on September 16, 2014. This testimony also includes discussion of
21		the impacts on the National Grid's projected gas costs and GRC rates for the period
22		November 1, 2014 through October 31, 2015 that result from: (1) National Grid's

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1 GRC reconciliations for its fiscal year ended March 31, 2014; (2) the Market Area 2 Hedge Proposal (filed on August 28, 2014 and accepted by the Commission on 3 September 30, 2014); and (3) the Company's Customer Choice Program filing made 4 on September 8, 2014. The discussion presented herein responds to portions of the 5 Direct Testimony, schedules and attachments included in the above referenced 6 filings that are sponsored by National Grid by witnesses Arangio, Smith, and 7 It also offers summaries of my evaluations of the Company's McCauley. 8 presentation with respect to (a) incentives earned by the Company under the 9 provisions of its Gas Procurement Incentive Plan (GPIP) and its Natural Gas 10 Portfolio Management Plan (NGPMP), and (b) the content of National Grid's Long-11 Range Gas Supply Plan that was filed with the Commission on March 10, 2014. 12 WHAT EXHIBITS ARE YOU SPONSORING AS PART OF THIS TESTIMONY? 13 Q. 14 Α. Attached to this testimony are five exhibits. They include: 15 16 Exhibit BRO-1 National Grid's Proposed Changes in GCR Charges 17 by Rate Class 18 Exhibit BRO-2 19 Changes in Forecasted Gas Costs by GCR Cost 20 Component 21 22 Exhibit BRO-3 Comparison of Projected End of October 2014 23 **Deferred Gas Cost Balances** 24 Page 1: Total Deferred Gas Cost Balances 25 Page 2: Deferred Variable Gas Cost Balances 26 27 28 Exhibit BRO-4 Comparison of Reported Non-Firm Gas Costs for

the Twelve Months Ended October 2013

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1 2		Exhibit BRO-5 C	Comparison of National Grid's Sales Forecasts from
3 4		Ε	Oocket Nos. 4436 and 4520 (the 2013 and 2014 GCR filings).
5 6 7			Comparison of National Grid's Design Winter and Jormal Winter Sales Forecasts.
8 9 10 11 12 13		C	mpact of Market Area Hedging and Customer Choice Program Changes on National Grid's Forecasted 2014-15 GCR Costs.
14			II. SUMMARY
15			
16	Q.	WHAT ARE THE KEY	FINDINGS OF YOUR REVIEW OF THE COMPANY'S
17		FILINGS IN THIS PROC	EEDING?
18	A.	Key findings from my exa	amination of the Company's gas cost related filings in this
19		proceeding include the fo	ollowing:
20			
21		The Company's pr	oposed GCR charges represent a decrease of about 25%
22		from the revised G	GCR charges that became effective April 1, 2014 and are
23		currently in effect.	¹ The proposed GCR charges also represent increases
24		ranging from 3.7%	to 4.9% when compared to the GCR charges that became
25		effective Novembe	er 1, 2013. ²
26			

See Exhibit BRO-1, page 1 of 2.

See Exhibit BRO-1, page 2 of 2.

1		Overall the Company's forecasted gas costs, prior to adjustments and
2		reconciliations, are 4.2% lower in this proceeding than in National Grid's last
3		annual GCR filing, and more than 20% lower than comparable cost
4		projections made by National Grid in its 2011 Annual GCR.3
5		
6	>	A 4.9% decrease in National Grid's projected Supply Variable Costs more
7		than offsets a 50.8% increase in the Company's projected Storage Variable
8		costs for the 2014-15 GCR year.
9		
10	>	The GCR rate revisions implemented April 1, 2014 were intended to reduce
11		the Company's projected October 31, 2014 Deferred Gas Cost Balance by
12		roughly \$17.5 million from the \$34.5 million level the Company forecasted in
13		its February 14, 2014 filing in Docket No. 4436 to an October 31, 2014
14		balance of \$16.9 million. However, the Company's most recent monthly
15		Deferred Gas Cost Balance Report filed on September 22, 2014 now projects
16		an October 31 Deferred Gas Cost Balance of \$28.4 million.4
17		
18	>	The Company's projected October 31, 2014 Deferred Gas Cost Balance
19		more than offsets the reductions in Fixed and Variable Gas costs that the
20		Company has otherwise achieved.

³ See Exhibit BRO-2.

See Exhibit BRO-3, page 1 of 2.

1		
2	>	Given the increased importance of basis costs for market area gas
3		purchases, National Grid's charges for TSS service need to be re-examined
4		as the TSS surcharge appears to be inadequate.
5		
6	>	The Division has been able to reconcile the Non-Firm Gas Costs shown in
7		Attachment AEL-2 for the twelve months ended October 2013 with the Non-
8		Firm Gas Costs reported in Schedule YC-6 that accompanies the testimony
9		of National Grid witness Chen in Docket No. 4514, but the reported non-firm
10		gas costs do not include gas costs associated with un authorized gas use by
11		Non-Firm customers during the months of January – March 2014.
12		
13	>	The Company's plans for transferring more than 3,000 customers from
14		Residential Non-Heating service rates to Residential Heating service rate
15		appears reasonable in concept, but further assessment of the impacts of that
16		proposed transfer is needed.
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1	Q.	WHA	AT RECOMMENDATIONS DO YOU OFFER TO THE COMMISSION AS A
2		RES	ULT OF YOUR EXAMINATION OF THE COMPANY'S FILINGS IN THIS
3		PRO	CEEDING?
4	A.	The	Commission should:
5			
6		>	Accept National Grid's proposed changes to its Customer Choice Program as
7			necessary measures to mitigate potential adverse impacts of current
8			marketer practices on the Company's costs of gas for firm sale service
9			customers.
10			
11		>	Find that the Company's proposed adjustments to its GCR charges to reflect
12			its Local Market Hedging Program and changes to its Customer Choice
13			Program are reasonable and appropriate.
14			
15		>	Require the Company to document and explain the reasons for all adjust-
16			ments to individual customer billings that involve more than 10,000 Dth (or
17			100,000 therms).
18			
19		>	Find that the calculations National Grid witness McCauley has presented in
20			support of the Company's claimed GPIP and NGPMP incentives are well
21			supported, accurately computed, and determined in a manner consistent with
22			the provisions of those incentive programs.

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Support National Grid's efforts to re-classify over 3,000 current Residential Non-Heating customers as Residential Heating service customers and, in doing so, help to re-establish the more heavily off-peak nature of Residential Non-Heating service requirements.

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III. BACKGROUND

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PLEASE PROVIDE AN OVERVIEW OF THE KEY FACTORS AND CONSIDER-ATIONS THAT SHOULD GUIDE THE COMMISSION'S CONSIDERATION OF NATIONAL GRID'S PROPOSED GCR CHARGES FOR THE 2014-15 GCR YEAR. The winter of 2013-14 exposed some of the vulnerabilities of National Grid's gas operations in Rhode Island as well as the New England gas markets generally. Multiple periods of colder than normal weather in January, February and the first half of March 2014 placed a financial strain on utility firm gas sales service customers, as well as many transportation service customers who rely on third-party marketers to serve their gas supply requirements. As customers' demands for gas increased with colder than normal weather, the costs of obtaining additional gas supplies to serve those incremental demands also rose. Due to constraints on the capacity of interstate pipelines serving New England, much of the incremental demand could only be served from local market resources, and greatly increased local market demands caused spot prices for gas purchased on a daily basis to soar to record levels.

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Increased requirements of daily purchases of incremental gas supplies
coupled with greatly increased prices for supplies purchased on a daily basis,
resulted in National Grid's rapid accumulation of unexpectedly large deferred gas
cost balances. In mid-February 2014 National Grid filed a request with this
Commission for an upward adjustment to its GCR charges in an effort to reduce its
projected end-of-GCR-period (i.e., October 31, 2014) deferred gas cost balance. At
that time the Company projected that its end-of-period deferred gas cost balance
would be about \$34.5 million, and it requested that the Commission approve a GCR
increase to recovery approximately 50% of that projected deferred gas cost balance
over the remaining seven months of the current GCR year (i.e., April through
October 2014). As shown in the Company's filing, the requested GCR increase was
designed to add \$0.2582 per therm or roughly 40% to the GCR charges that
became effective November 1, 2014. As part of its decision to approve National
Grid's requested increase in GCR charges, this Commission directed the Company
to review a number of factors that might help to limit the Company's exposure to
large gas cost increases in subsequent winters. Specifically, the Commission
directed National Grid to review:

(1) its gas hedging program, (2) other means of limiting requirements for daily spot purchases of natural gas during periods of extreme weather; (3) the terms under which gas marketers deliver gas to National Grid; (4) pricing for customers who return to gas supply service; and (5) non-firm customer compliance with service interruption requests and the adequacy of penalties for non-compliance.⁵

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1 Over the last several months, the Division has worked with National Grid in its 2 investigation of the matters identified in the Commission's May 15, 2014 Report and 3 Order. The Company's recent filing of a Local Market Hedging Plan and Gas 4 Customer Choice Program changes are reflections of a portion of those efforts. 5 IV. DISCUSSION OF ISSUES 6 7 8 A. GCR Reconciliations 9 HAVE YOU ASSESSED THE REASONABLENESS AND COMPUTATIONAL 10 Q. 11 ACCURACY OF NATIONAL GRID'S GCR RECONCILIATIONS FOR THE 12 **TWELVE MONTHS ENDED MARCH 31, 2014?** 13 Α. Yes, I have, and I find no reason to question either the methods used to present 14 those reconciliations or the mathematical accuracy of those computations. However, two concerns regarding the Company's gas cost reconciliations must be 15 16 noted. First, I find, once again, that National Grid's reported actual costs, revenues, 17 and service volumes reflect large billing adjustments for which supporting details 18 and rationales are not discussed. Second, inconsistencies have been found 19 between the reported Non-Firm Gas Costs credited (or charged) to firm gas costs in

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the Company's reconciliation filing and the Non-Firm Gas costs identified in

⁵ RIPUC Order No. 21465, "Report and Order" in Docket No. 4436, dated May 15, 2014 at page 11.

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1	Schedule YC-6 that accompanies witness Chen's testimony in the Company's 2014
2	DAC filing (Docket No. 4514).

Q. WHAT IS THE RELEVANCE OF LARGE BILLING ADJUSTMENTS TO THE DIVISIONS EFFORTS TO VERIFY THE REASONABLENESS AND ACCURACY OF NATIONAL GRID'S GAS COST RECONCILIATIONS?

National Grid has provided no explanation or documentation upon which the Division can rely to assess the appropriateness of those adjustments and consistency in the manner in which such adjustments and the revenue and cost impacts of those adjustments have been reflected in the Company's gas cost reconciliations. As a result, the Division is unable to support the Commission's acceptance of National Grid's filed gas cost reconciliations as presented. Furthermore, unless the effects of large billing adjustments on the distribution of gas use by month are explicitly considered in the development of data inputs for the forecasting of future period throughput volumes, the accuracy and reliability of the Company's forecasted gas use volumes by rate class may be adversely affected. Again, nothing in the Company's presentations in this proceeding addresses the manner in which large billing adjustments for Large and Extra Large C&I customers were considered in its preparation of forecasted gas sales and throughput estimates.

1	Q.	CAN YOU CITE EXAMPLES OF THE IMPACTS OF LARGE BILLING
2		ADJUSTMENTS ON THE COMPANY'S REPORTED ACTUAL GAS USE
3		VOLUMES?
4	A.	Yes. The actual throughput data by class for the twelve months ended March 2014
5		that is provided in Attachment AEL-2, page 8 of 8, show several classes for which
6		total throughput for a month is negative. Since it is not physically possible for either
7		a customer or class of customers to have negative gas use, it is reasonable to
8		assess that negative volumes shown for a class in any month are indicative of the
9		Company's reflection of one or more large billing adjustments during the month for
10		customers in the affected class. Moreover, the fact that the overall usage reported
11		for the class for a given month is negative, suggests that the billing adjustment(s)
12		applied were sufficiently large to more than offset the total actual gas consumption
13		in that month for all customers in the class. For example, line 10, on page 8 of
14		Attachment AEL-2 reports "actual" gas use for Extra Large Low Load Factor Sales
15		service customers for the month of May 2013 as -71,177 Dth where the total
16		reported sales for that class for the twelve months ended October 2013 is 90,521
17		Dth. Clearly, the billing adjustments included in the May 2013 usage volumes for
18		this class are substantial.
19		
20	Q.	COULD THE NEGATIVE VOLUMES FOR EXTRA LARGE LOW LOAD FACTOR
21		SALES SERVICE REPORTED FOR MAY 2013 BE REFLECTIVE OF EFFORTS
22		TO REMOVE USAGE THAT WAS INCORRECTLY ASSIGNED TO THAT CLASS?

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A. Arguably, that could be the case. However, National Grid has provide nothing to support such a finding, and there is no observable offsetting increase in the gas volumes reported May 2013 for any other Large or Extra Large C&I rate classification. I also note that line 58 on the same page also shows -64,639 Dth of gas use for all Extra Large Low Load Factor service (i.e., Sales service, FT-1 service, and FT-2 service combined) for the month of May 2013. Thus, the negative volumes for Extra Large Low Load Factor sales service do not appear to be reflective of a reassignment of volumes from sales service to transportation service for customers within the Extra Large Low Load Factor class.

Q.

Α.

WHAT ARE THE INCONSISTENCIES FOUND BETWEEN THE NON-FIRM GAS COSTS IN THE COMPANY'S GCR RECONCILIATION FILING AND THE NONFIRM GAS COSTS IDENTIFIED IN THE COMPANY'S 2014 DAC FILING?

Exhibit BRO-4 presents a comparison of Non-Firm Gas Costs reflected in the Company's DAC filing for the twelve months ended October 2013 with the Non-Firm Gas Costs shown as credits (charges) to National Grid's Firm Gas Costs in reported for the same time period in Attachment AEL-2, page 4, line 98, in this proceeding. That comparison demonstrates no direct ties between the Non-Firm Gas Costs reported for the same time period in those documents.

Since the month-by-month, customer-by-customer detail provided in Schedule YC-6 in Docket No. 4514 indicates the month to which charges were applicable as well as the month in which charges were billed, I also went back and

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assigned the reported Non-Firm gas costs by month based on the indicated month for which the charges were applicable. The adjusted Non-Firm Gas Costs from Docket No. 4514 are shown on line 5 of Exhibit BRO-4. However, that exercise only altered the assignment of gas costs for two months, December 2013 and January 2014. In each of those months, the assignment of gas costs to the applicable month, as opposed to the "Banner Bill" month increased, rather than narrowed the observed differences between the reported Non-Firm Gas Costs in this docket and those derived from Schedule YC-6 in the Company's 2014 DAC proceeding. Thus, further efforts to explain the differences in these reported measures of Non-Firm Gas Costs appear warranted.

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B. National Grid's Gas Cost and Throughput Projections

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Q. HAVE YOU EXAMINED THE DETAILS OF THE PROJECTIONS OF GAS COSTS AND THROUGHPUT UPON WHICH THE COMPANY RELIES IN THE **DEVELOPMENT OF ITS PROPOSED GCR CHARGES?**

17 Yes, I have. The details of the Company's gas cost projections for its 2014-15 GCR Α. 18 year (i.e., the twelve months ended October 2015) are presented Attachment EDA-19 2S and Attachment AEL-1S, pages 4 through 10. I have reviewed both redacted and un-redacted versions of those attachments. The Company's forecasted 20

Attachment AEL-1S.

throughput volumes for its 2014-15 GCR year are presented on pages 11 and 12 of

1		
2	Q.	DO YOU HAVE ANY CONCERNS REGARDING THE DETAILS OF NATIONAL
3		GRID'S GAS COST PROJECTIONS AND DEVELOPMENT OF GCR CHARGES
4		FOR THE TWELVE MONTHS ENDED OCTOBER 2015?
5	A.	Yes, I do. I once again find problems in the Company's development and use of
6		forecasted sales and throughput data that raise questions regarding the
7		appropriateness and reliability of the forecasted annual throughput and design
8		winter sales volumes upon which the Company relies to develop its proposed GCR
9		charges. I also find that Company's testimony regarding the responsibility of Firm
10		Transportation service customers for portions of the Company's Fixed Costs needs
11		clarification.
12		
13	Q.	WHAT ARE THE PROBLEMS ASSOCIATED WITH THE COMPANY'S
14		DEVELOPMENT AND USE OF FORECASTS OF ANNUAL THROUGHPUT AND
15		DESIGN WINTER SALES THAT YOU HAVE IDENTIFIED?
16	A.	First, comparisons of the Company's forecasts of annual throughput and design
17		winter requirements in this proceeding with comparable data from the Company's
18		last annual GCR filing (Docket No. 4436) reflect large shifts in the distribution of
19		usage by month for which the Company offers no explanation and no supporting
20		workpapers that shed light on the causes of, and/or reasons for, such shifts.
21		Second, when the detail of the Company's Design Winter and Normal Winter

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forecast data in this proceeding is compared on a class-by-class and month-by-

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month basis with National Grid's filed Design Winter and Normal Winter Sales 1 2 forecasts from the prior year GCR filing in Docket No. 4436, the results reflect 3 inconsistencies in forecasted requirements. Third, numerous situations have been identified in which the Company's 4 5 forecasted sales for a class under Design Winter conditions in a given month are, 6 counter intuitively, less than its forecasted sales for the same rate class and month 7 under Normal Weather conditions. 8 Fourth, the Company has made no effort to adjust its forecasted sales to 9 reflect the planned transfer of Residential Non-Heating customers to Residential 10 Heating service. 11 WHAT ARE THE LARGE SHIFTS IN THE COMPANY'S FORECASTED 12 Q. 13 DISTRIBUTION OF ANNUAL THROUGHPUT AND DESIGN WINTER SALES 14 THAT YOU HAVE FOUND IN YOUR REVIEW OF THE COMPANY'S FORECAST DATA AND WHY ARE THOSE SHIFTS RELEVANT TO THIS PROCEEDING? 15 The large shifts in forecasted volumes to which I have referred are illustrated in part 16 Α. 17 by the forecast comparisons presented in Exhibit BRO-5. Page 1 of Exhibit BRO-5 18 shows that the Company's Design Winter forecast in this proceeding reflects a 19 13.0% increase in total forecasted Design Winter Sales for the month of November 20 when compared to the Company's forecast in Docket No. 4436. However, National

Grid's forecasted Design Winter Sales for all other winter months (i.e., December,

January, February and March) show declines from the levels forecasted in Docket

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No. 4436. Similar patterns are found for nearly all of the Company's low load factor service classifications, as well as for the Residential Non-Heating class.

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4 Q. CAN YOU PROVIDE EXAMPLES OF SITUATIONS IN WHICH THE COMPANY'S FORECASTED NORMAL WEATHER SALES FOR A CLASS ARE GREATER 5 6 THAN ITS FORECASTED DESIGN WINTER SALES FOR THE SAME CLASS? 7 Α. Yes. Exhibit BRO-6 compares the Company's filed forecasts of Design Winter Sales 8 and Normal Winter Sales by rate class by month for November 2014 through March 9 2015. For every rate class National Grid's Forecasted Normal Winter Sales for the 10 month of February are greater than its forecasted Design Winter Sales. Similarly, 11 for all classes other than the Large HLF class the Company's forecasted Normal 12 Winter Sales are also greater than its forecasted Design Winter Sales for the month 13 of March. Given that design winter conditions are generally understood to represent 14 more extreme weather than would be found under normal weather conditions, these 15 results are difficult to rationalize. It appears that the Company has tried to create an 16 extremely severe Design Winter scenario by assigning an extreme number of 17 degree days to the early part of the winter season. However, the Company has 18 provide no basis for an assumption that extreme early winter (i.e., November and 19 December) cold weather justifies an assumption that the remaining months of the 20 winter (January, February and March) would be warmer than normal.

21

1	Q.	WHAT ARE THE INCONSISTENCIES IN THE COMPANY'S FORECASTS OF
2		DESIGN WINTER AND NORMAL WINTER SALES TO WHICH YOU HAVE
3		REFERRED?
4	A.	While page 1 of Exhibit BRO-5 depicts significant increases in the Company's fore-
5		casted Design Winter Sales for the Month of November, Exhibit BRO-5, page 1,
6		indicates that the Company forecasts of Normal Winter Sales requirements for the
7		month of November decline (in total and for all but one rate class (i.e., XL LLF
8		service). Thus, the Company's forecasts suggest that we should accept that while
9		Normal Winter Sales for the month of November are declining in total and for most
10		rate classes, sharp increases in forecasted Design Winter Sales for the same month
11		are reasonable. In the absence of more explicit explanations and justifications for
12		the differences in the direction of these forecasted results, the consistency and
13		credibility of the Company's forecasting methods and assumptions must be
14		questioned.
15		
16	Q.	WHAT IS THE RELEVANCE OF NATIONAL GRID'S FAILURE TO ADJUST ITS
17		FORECASTED SALES TO REFLECT THE COMPANY'S PLANNED TRANSFER
18		OF CUSTOMERS FROM RESIDENTIAL NON-HEATING SERVICE TO
19		RESIDENTIAL HEATING SERVICE?
20	A.	The underlying reason for the planned customer transfers is to ensure that
21		customers currently in the Non-Heating class who have space heating equipment
22		and/or space heating related usage characteristics are removed from the non-

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heating class and placed in a class that generally has more comparable usage characteristics. As I noted in last year's GCR proceeding, the inclusion of customers with heating use characteristics in the Residential Non-Heating class was eroding the traditionally more off-peak character of the Residential Non-Heating class. In this context, the customers to be transferred from non-heating service to heating service should be expected to carry with them a disproportionately large share of the current winter season gas use for the Non-Heating class.

Furthermore, the Commission should recognize that the design winter requirement of Large HLF sales customers and Extra Large HLF sales customers only represent a comparatively small portion of total Large and Extra Large HLF customer throughput requirements. Thus, the Design Winter requirements of customers who will be transferred to Residential Heating service could represent a noticeable portion of the total High Load Factor Design Winter Sales that National Grid uses to allocate Fixed Costs between its High Load Factor and Low Load Factor customer classifications for GCR rate determination purposes. However, instead of documenting the impact of customer transfers on the load characteristics for the remaining Residential Non-Heat customers, the Company simply asserts, without offering analytic support, that the planned reassignment of customers will have minimal impact.

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1 Q. WHY DOES THE RESPONSIBILITY OF FIRM TRANSPORTATION SERVICE 2 CUSTOMERS FOR PORTIONS OF THE COMPANY'S FIXED COSTS NEED

CLARIFICATION?

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A.

Witness Leary's Direct Testimony at pages 5-6, states, "...the Company's gas supply resources are planned so that there is sufficient to meet the needs of firm sales customers under design winter conditions..." That statement provides an incomplete and inappropriate assessment of the Company's capacity planning and fails to recognize explicitly the role of the Company in the provision of capacity for transportation service customers. Use of the Company's gas supply resources is NOT limited to firm sales customers, and therefore, the Company's planning of those gas supply resources is NOT solely the responsibility of Firm Sales Service customers. In fact, elsewhere in witness Leary's presentation recognition the responsibility of Transportation Service customers for gas supply resource costs that are part of the National Grid's gas supply planning are recognized through (1) Attachment AEL-5 which shows the development of FT-2 demand charges; and (2) Attachment AEL-1, page 4 of 12, line 17, which reflects over \$6.7 million of revenue credits from the Company's releases of capacity to marketers to serve transportation customer requirements for which National Grid carries a capacity planning responsibility.6

National Grid does not have an obligation to plan gas supply resources for those Transportation service customers who have elected "Capacity Exempt" status.

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C. Proposed Gas Customer Choice Program Changes

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Q. SHOULD THE COMMISSION SUPPORT THE CHANGES THAT NATIONAL GRID HAS PROPOSED FOR ITS CUSTOMER CHOICE PROGRAM?

A. Yes. As previously discussed, the winter of 2013-14 exposed some vulnerabilities in the Company's Customer Choice Program that could lead to inappropriate increases in its costs of gas for Firm Sales service customers. National Grid's proposed changes in its Customer Choice Program represent a first step toward limiting its exposure to unanticipated and inappropriate cost increases that may otherwise result from marketers' actions under the current program structure.

Α.

Q. HOW WILL THE PROPOSED CUSTOMER CHOICE PROGRAM CHANGES IMPACT CUSTOMERS THAT PURCHASE THEIR GAS SUPPLIES FROM THIRD

PARTY MARKETERS?

Overall the impact of these changes on customers who purchase gas supplies from third party gas marketers are not expected to be significant. However, as with many elements of supply-related pricing in the gas industry, cost impacts may be more noticeable under severe winter weather conditions. The largest elements of the costs that customers incur under competitive gas supply contracts are generally associated with commodity costs and capacity costs. For customers that are assigned capacity from National Grid's portfolio of gas supply resources, these changes should have no impact on their capacity costs. The changes National Grid

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proposes should have no impact on broader commodity markets (e.g., NYMEX commodity prices). However, the Company's proposal may impact the supply alternatives available to gas marketers and may influence the number and frequency of market area gas purchases by third-party gas suppliers.

Still, the impacts of National Grid's proposed Gas Customer Choice Program changes on gas commodity charges under third-party gas supply contracts may depend on the terms of the contracts that individual customers negotiate with their suppliers. The pricing provisions found in competitive gas supply contracts are not standardized and can vary considerably. Even the pricing provisions of contracts for different customers served by the same supplier can differ noticeably. Some may allow pass-through of any added costs that a supplier incurs, other may not. Furthermore, third-party gas suppliers see little or no impact of the Company's proposals during periods of normal or warmer than normal winter weather, but such impacts are likely to be greater, if and when, periods when pipeline capacity constraints are encountered and marketers are dependent upon purchases of market area gas supplies to serve unplanned increases in customers' demands.

D. Impacts of Market Area Hedging Plan

Q. HOW WILL THE COMPANY'S MARKET AREA HEDGING PLAN IMPACT ITS COSTS OF GAS FOR THE COMING GCR PERIOD?

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The Direct Testimony on National Grid witness McCauley at pages 6-7 represents that the estimated cost impact of the Company's Market Area Hedging Plan would be approximately \$788,000 for the forecasted 2014-15 GCR year. He further estimates that the proposed market area hedges would equal approximately 0.5% to the Company's overall gas costs for the twelve months ended October 2015. The Company's subsequent Supplemental Direct Testimony, filed on September 16, 2014 shows the combined GCR impact of its Market Area Hedging Plan and proposed revisions to its Customer Choice Program. As summarized in Exhibit BRO-7, the combined impact of the Market Area Hedging Plan and the Company's proposed Customer Choice Program changes on National Grid's 2014-15 forecasted gas costs is \$666,991 or 0.38%.

A.

Α.

Q. ARE THE IMPACTS OF THOSE PROGRAMS REASONABLE?

In my opinion they are. Both the Market Area Hedging Plan and the proposed revisions to National Grid's Customer Choice Plan are designed to limit the potential impacts of adverse market area prices on the incremental costs of gas that the Company can be expected to incur this winter under colder than normal weather conditions given limitations on interstate pipeline capacity in New England. Thus, the increase in forecasted 2014-15 GCR costs should be viewed as a form of insurance which carries an identifiable upfront cost but limits price risk under adverse market conditions. When the Company's projected October 31, 2014 deferred gas cost balance (\$28.4 million) is combined with the cost to ratepayers of

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the mid-year increase in GCR charges implemented April 1, 2014 (i.e., about \$17.5 million), we find that last winter's adverse weather cost ratepayers a total of more than \$45.9 million. In that context, the Company's incurrence of less than \$700,000 of additional GCR costs upfront to reduce ratepayers' potential exposure to increased costs under severe weather conditions during the winter of 2014-15 by more than \$10 million reflects what I consider to be a reasonable and prudent cost control strategy.

E. GPIP and NGPMP Incentive Calculations

Q. HAS THE GPIP FUNCTIONED IN A MANNER THAT HAS HELPED TO REDUCE THE COMPANY'S COMMODITY COSTS OF GAS AND MODERATE FLUCTUATIONS IN THOSE COSTS AS IT WAS INTENDED?

Yes, it has. Although National Grid experienced a sharp increase in its gas costs during the winter of 2013-14, that increase was due to a combination of colder than normal weather, increased requirements for daily purchases of gas in the local market area during the past winter, and unexpectedly high prices for such daily purchases in the market area. Essentially all of those purchases were outside of the parameters of the predictable gas volume requirements that the GPIP was designed to address. Still, the evidence in this case suggests that the Company's cost for the vast majority of its gas purchases that do involve more predictable gas supply requirements have continued to decline. As shown in Exhibit BRO-2, National Grid's

1		projected Variable Costs of Gas for the winter of 2014-15 based on normal weather
2		assumptions are 5.2% below its comparable cost projections for the prior year and
3		27.7% below the annual variable costs of gas it projected for the 2011-12 GCR year.
4		
5		Although much of the reduction in variable gas costs that has been
6		experienced over the last three years may be attributable to changes in gas market
7		conditions and the increased availability of competitively priced gas from shale
8		formations in eastern states (e.g., the increasingly prolific Marcellus Shale
9		formation), the GPIP has continued to contribute to reductions in costs for vast
10		majority of the Company's predictable gas supply requirements. That contribution is
11		supported by the gas procurement detail that National Grid witness McCauley
12		presents in Attachment SAM-2 to this Direct Testimony in this proceeding.
13		
14	Q.	WHAT IS THE GPIP INCENTIVE THAT NATIONAL GRID HAS COMPUTED FOR
15		THE TWELVE-MONTH PERIOD FROM JULY 1, 2013 TO JUNE 30, 2014?
16	A.	Witness McCauley's Direct Testimony at page 4 of 9, indicated the Company's
17		calculated net GPIP incentive for that period is \$60,078.
18		
19	Q.	DO YOU SUPPORT COMMISSION APPROVAL OF THE GPIP INCENTIVE THAT
20		NATIONAL GRID HAS COMPUTED?

1	A.	Yes. I have reviewed the supporting detail for the Company's GPIP incentive
2		calculations, and I find no reason to question the accuracy and appropriateness of
3		the computed \$60,078 GPIP incentive.
4		
5	Q.	HAVE YOU REVIEWED THE CALCULATED NATURAL GAS PORTFOLIO
6		MANAGEMENT PLAN (NGPMP) INCENTIVE FOR WHICH NATIONAL GRID
7		SEEKS APPROVAL IN THIS PROCEEDING?
8	A.	Yes, I have. As explained in witness McCauley's Direct Testimony at page 8 of 9,
9		National Grid has requested approval of an NGPMP incentive for the twelve months
10		ended March 2014 of \$1,474,167.13. The Company's support for its computed
1		NGPMP incentive is presented in Attachment SAM-3. I have reviewed the
12		considerable detail that the Company has presented in Attachment SAM-3 and
13		discussed the data and calculations contained in that report with witness McCauley.
14		
15	Q.	DO YOU SUPPORT THE COMMISSION'S APPROVAL OF NATIONAL GRID'S
16		REQUESTED \$1.47 MILLION NGPMP INCENTIVE?
17	A.	Yes, I do. The calculations presented in Attachment SAM-3 are consistent with the
18		incentive provisions of the NGPMP, and I have found no mathematical errors in
19		those calculations. I also observe that the \$1.47 million incentive National Grid has
20		earned for the twelve-month period ended March 2014 is reasonable in comparison
21		to incentives other gas utilities have earned under comparable gas asset
22		management programs in other jurisdictions.

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F. Transfer of Residential Non-Heating Customers

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1

3 Q. THE DIRECT TESTIMONY OF NATIONAL GRID WITNESS LEARY AT PAGES 10 THROUGH 12, DISCUSSES THE COMPANY'S IDENTIFICATION OF RESI-4 5 DENTIAL NON-HEATING CUSTOMERS THAT IT INTENDS TO TRANSFER TO RESIDENTIAL HEATING SERVICE. ARE YOU SUPPORTIVE OF THE COM-6 7 PANY'S PLANS TO TRANSFER THE IDENTIFIED CUSTOMERS? I appreciate the Company's efforts to identify customers who have been 8 Α. 9 inappropriately taking service under the Company's Residential Non-Heating rates. 10 I also believe those effort represent an important step toward re-establishing the 11 more off-peak nature of Residential Non-Heating class service requirements. 12 However, at this point National Grid has not clearly identified the actual number of 13 customers it intends to transfer to Residential Heating service, and it has not provide 14 adequate detail regarding the usage characteristics of the customers it intends to transfer. Thus, the Division in not in a position to: (a) verify appropriateness of the 15 16 Company's determinations who should be transferred; (b) evaluate the impacts of 17 the transfers on GCR charges for High Load Factor and Low Load Factor customer 18 classifications; and (c) assess the range of individual customer bill impacts that 19 should be expected when the planned transfers are implemented.

20

21

22

Q. HAVE YOU ASSESSED BILL IMPACTS FOR THE TRANSFER OF A CUSTOMER FROM RESIDENTIAL NON-HEATING TO RESIDENTIAL HEATING ASSUMING

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1 THE CUSTOMER HAS TYPICAL GAS USE PATTERNS FOR A RESIDENTIAL 2 **HEATING CUSTOMER?** 3 Α. Yes. Under those assumptions, it appears that such a customer would experience 4 a small (i.e., less than 1%) bill increase. However, due to the blocking of charges 5 for Residential Heating service customers, effective bill impacts can vary noticeably 6 with changes in either the customer's total annual volumes or the customer's 7 monthly distribution of gas use. As the portion of a customers monthly or annual 8 gas use that is billed in the excess usage rate block (i.e., the second rate block) 9 increases, the benefits to the customer of a transfer to Residential Heating service 10 rates also increase. On the other hand, a customer subject to transfer who displays 11 Residential Heating load characteristics, but uses fewer therms of gas on an annual 12 basis than a typical residential heating customer could see a noticeable increase in 13 total annual charges for gas service. 14 15 16 17 18 19

20

1			IV. GCR RATE RECOMMENDATIONS									
2												
3	Q.	SHO	ULD THE COMMISSION APPROVE THE GCR CHARGES PRESENTED IN									
4		ATT	ACHMENT AEL-1S FILED ON SEPTEMBER 16, 2014 AS PART OF THE									
5		CON	IPANY'S SUPPLEMENTAL DIRECT TESTIMONY?									
6	A.	I reco	ommend that the Commission to accept the GCR charges presented in the									
7		Com	pany's Supplemental Direct Testimony subject to further investigation of the									
8		unre	unresolved issues discussed herein and the opportunity to subsequently revise									
9		the C	Company's GCR rates, if necessary, to reflect the results of such further									
10		inves	stigations. The unresolved issues to which I refer include:									
11												
12		(1)	The appropriateness of large billing adjustments for Large and Extra									
13			Large C&I accounts and their impacts on the Company's actual gas									
14			costs, actual gas revenues, and forecasted service requirements;									
15												
16		(2)	Reconciliation of the Company's Non-Firm Costs of Gas in this									
17			proceeding with those reflected in the Company's 2014 DAC filing,									
18												
19		(3)	Identification of the impacts of movements of customers between TSS									
20			service and Default Service on National Grid's reported actual firm									
21			service gas costs and deferred gas cost balances; and									
22												

1		(4)	The reasonableness of the methods the Company has used to
2			forecast design winter sales requirements;
3			
4		(5)	Quantification of the range of bill impacts that can be expected to
5			result from National Grid's proposed transfer of over 3,000 Residential
6			customers from Non-Heating to Heating service and the impacts of
7			that transfer on GCR charges for High Load Factor customer
8			classifications.
9			
10	Q.	DOE	S THIS CONCLUDE YOUR TESTIMONY?
11	A.	Yes,	it does.
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			

Docket No. 4520

National Grid's Proposed Changes in GCR Charges by Rate Class

	Current GCR	NGrid Proposed GCR	Increase (Decrease)			
Rate Classification	Rate 1/	Rate 2/	\$	%		
	(\$/Therm)	(\$/Therm)	(\$/Therm)			
Residential						
Non-Heating	\$0.8963	\$0.6692	(\$0.2271)	-25.3%		
Low Income - Non-Heating	\$0.8963	\$0.6692	(\$0.2271)	-25.3%		
Heating	\$0.9208	\$0.6871	(\$0.2337)	-25.4%		
Low Income - Heating	\$0.9208	\$0.6871	(\$0.2337)	-25.4%		
Commercial & Industrial						
Small	\$0.9208	\$0.6871	(\$0.2337)	-25.4%		
Medium	\$0.9208	\$0.6871	(\$0.2337)	-25.4%		
Large Low Load Factor	\$0.9208	\$0.6871	(\$0.2337)	-25.4%		
Large High Load Factor	\$0.8963	\$0.6692	(\$0.2271)	-25.3%		
Extra Large Low Load Factor	\$0.9208	\$0.6871	(\$0.2337)	-25.4%		
Extra Large High Load Factor	\$0.8963	\$0.6692	(\$0.2271)	-25.3%		

^{1/} GCR charges effective April 1, 2014.

^{2/} From Attachment AEL-1S, Page 1, filed 9/16/14 with charges to become effective November 1, 2014.

Docket No. 4520

National Grid's Proposed Changes in GCR Charges by Rate Class

		NGrid				
	11/1/13	Proposed				
	GCR	GCR	Increase (Decrease)			
Rate Classification	Rate 1/	Rate 2/	\$	%		
	(\$/Therm)	(\$/Therm)	(\$/Therm)			
Residential						
Non-Heating	\$0.6381	\$0.6692	\$0.0311	4.9%		
Low Income - Non-Heating	\$0.6381	\$0.6692	\$0.0311	4.9%		
Heating	\$0.6626	\$0.6871	\$0.0245	3.7%		
Low Income - Heating	\$0.6626	\$0.6871	\$0.0245	3.7%		
Commercial & Industrial						
Small	\$0.6626	\$0.6871	\$0.0245	3.7%		
Medium	\$0.6626	\$0.6871	\$0.0245	3.7%		
Large Low Load Factor	\$0.6626	\$0.6871	\$0.0245	3.7%		
Large High Load Factor	\$0.6381	\$0.6692	\$0.0311	4.9%		
Extra Large Low Load Factor	\$0.6626	\$0.6871	\$0.0245	3.7%		
Extra Large High Load Factor	\$0.6381	\$0.6692	\$0.0311	4.9%		

^{1/} GCR charges effective November 1, 2013.

^{2/} From Attachment AEL-1S, Page 1, filed in this docket 9/16/14 to become effective 11/1/14.

Docket No. 4520

Changes in Forecasted Gas Costs by GCR Cost Component Without Adjustments and Reconciliations

	Forecasted Annual Cost	Forecasted Annual Cost	Forecasted Annual Cost	Forecasted Annual Cost	Change 2013-14	to 2014-15	Change 2012-13	to 2013-14	Change 2011-12 t	to 2012-13	Change 2011-12	to 2014-15
GCR Cost Component	2014-15 1/	2013-14 2/	2012-13 3/	2011-12 4	/ \$	%	\$	%	\$	%	\$	%
Supply Fixed Costs	\$ 28,022,697	\$ 29,048,581	\$ 28,645,415	\$ 31,644,448	\$ (1,025,884)	-3.5%	\$ 403,166	1.4%	\$ (2,999,033)	-9.5%	\$ (3,621,751)	-11.4%
Storage Fixed Costs	\$ 15,825,144	\$ 15,830,032	\$ 11,398,130	\$ 10,518,269	\$ (4,888)	0.0%	\$ 4,431,902	38.9%	\$ 879,861	8.4%	\$ 5,306,875	50.5%
Supply Variable Costs	\$ 91,932,137	\$ 103,784,247	\$107,717,133	\$ 131,388,232	\$ (11,852,110)	-11.4%	\$ (3,932,886)	-3.7%	\$ (23,671,099)	-18.0%	\$ (39,456,095)	-30.0%
Storage Variable Costs	\$ 18,191,427	\$ 12,062,659	\$ 16,438,331	\$ 20,998,401	\$ 6,128,768	50.8%	\$ (4,375,672)	-26.6%	\$ (4,560,070)	-21.7%	\$ (2,806,974)	-13.4%
TOTAL	\$ 153,971,405	\$ 160,725,519	\$164,199,009	\$ 194,549,350	\$ (6,754,114)	-4.2%	\$ (3,473,490)	-2.1%	\$ (30,350,341)	-15.6%	\$ (40,577,945)	-20.9%
Total Fixed Costs Total Variable Costs	\$ 43,847,841 \$ 110,123,564	\$ 44,878,613 \$ 115,846,906	\$ 40,043,545 \$124,155,464	\$ 42,162,717 \$ 152,386,633	\$ (1,030,772) \$ (5,723,342)	-2.3% -4.9%	\$ 4,835,068 \$ (8,308,558)	12.1% -6.7%	\$ (2,119,172) \$ (28,231,169)	-5.0% -18.5%	\$ 1,685,124 \$ (42,263,069)	4.0% -27.7%

Source: Docket No. 4520, Attachment AEL-1S, September 16, 2014, page 2-5.
 Source: Docket No. 4436, Attachment AEL-1, September 3, 2013, pages 2-5.
 Source: Docket No. 4346, Attachment AEL-1, September 4, 2012, pages 2-5.

^{4/} Source: Docket No. 4283, Attachment EDA-1, September 13, 2011, page 1.

Docket No. 4520

Comparison of Projected End of October 2014 Deferred Gas Cost Balances *Total Deferred Gas Cost Balances*

	Date Filed	Oct	Projected ober 31, 2014 erred Balance	 Change
4436 November Deferred Gas Cost Balance Report	12/19/2013	\$	7,286,803	
4436 Revised GCR Filing - Prior to GCR Rate increase	2/14/2014	\$	34,451,307	\$ 27,164,504
4436 Revised GCR Filing - After GCR Rate Increase	2/14/2014	\$	16,931,355	\$ (17,519,952)
4436 March Deferred Gas Cost Balance Report	4/21/2014	\$	33,605,864	\$ 16,674,509
4520 Supplemental Testimony 2014 Annual GCR	9/16/2014	\$	29,031,120	\$ (4,574,744)
4436 August Deferred Gas Cost Balance Report	9/22/2014	\$	28,376,810	\$ (654,310)

Docket No. 4520

Comparison of Projected End of October 2014 Deferred Gas Cost Balances Deferred Variable Gas Cost Balances

	Date Filed	Octo	Projected ober 31, 2014 rred Balance	Change
4436 November Deferred Gas Cost Balance Report	12/19/2013	\$	9,162,891	
4436 Revised GCR Filing - Prior to GCR Rate increase	2/14/2014	\$	38,943,313	\$ 29,780,422
4436 Revised GCR Filing - After GCR Rate Increase	2/14/2014	\$	21,423,362	\$ (17,519,951)
4436 March Deferred Gas Cost Balance Report	4/21/2014	\$	39,680,115	\$ 18,256,753
4520 Supplemental Testimony 2014 Annual GCR	9/16/2014	\$	36,091,594	\$ (3,588,521)
4436 August Deferred Gas Cost Balance Report	9/22/2014	\$	35,630,505	\$ (461,089)

Docket No. 4520

Comparison of Reported Non-Firm Gas Costs for the Twelve Months Ended October 2013

Reported Non-Firm Gas Costs														
Ln		Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr - Mar
No	Source	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual
1	Docket 4514 Sch YC-6, p 2, lin	e 4 \$ 142,979	\$ 41,869	\$ 46,741	\$ 42,367	\$ 47,565	\$ 57,396	\$ 72,154	\$ 162,407	\$ 190,360	\$ 194,564	\$ 72,986	\$ 228,116	\$ 1,299,504
2	Docket 4520 Att AEL-2, p 4, lin	e 98 \$ 179,995	\$ 154,699	\$ 34,947	\$ 38,610	\$ 36,653	\$ 37,160	\$ 67,033	\$ 73,267	\$ 210,486	\$ 325,078	\$ 563,574	\$(344,656)	\$ 1,376,846
3	Difference Line 1 - Line 2	\$ (37,016)	\$(112,830)	\$ 11,794	\$ 3,757	\$ 10,912	\$ 20,236	\$ 5,121	\$ 89,140	\$ (20,126)	\$(130,514)	\$(490,588)	\$ 572,772	\$ (77,342)
4	% Difference Line 3 / Line 1	-25.9%	-269.5%	25.2%	8.9%	22.9%	35.3%	7.1%	54.9%	-10.6%	-67.1%	-672.2%	251.1%	-6.0%
5	Docket 4514 Adj for Month Cha	arges Apply \$ 142,979	\$ 41,869	\$ 46,741	\$ 42,367	\$ 47,565	\$ 57,396	\$ 72,154	\$ 162,407	\$ 268,615	\$ 116,308	\$ 72,986	\$ 228,116	\$ 1,299,503

Docket No. 4520

Comparison of National Grid's Forecasted Design Winter Sales

Docket No. 4436 vs Docket No. 4520 - by Rate Class by Month

	Forecasted Design Winter Sales							
	Nov	Dec	Jan	Feb	Mar	Nov - Mar		
Residential Non-Heating								
Docket 4436	70,781	110,056	112,404	104,621	94,489	492,351		
Docket 4520	82,450	108,645	120,286	104,840	98,469	514,690		
Difference	11,669	(1,411)	7,882	219	3,980	22,339		
% Difference	16.5%	-1.3%	7.0%	0.2%	4.2%	4.5%		
Residential Heating								
Docket 4436	1,917,520	3,306,255	3,390,536	3,173,466	2,747,592	14,535,369		
Docket 4520	2,193,617	3,003,064	3,368,645	2,923,156	2,683,484	14,171,966		
Difference	276,097	(303,191)	(21,891)	(250,310)	(64,108)	(363,403)		
% Difference	14.4%	-9.2%	-0.6%	-7.9%	-2.3%	-2.5%		
Small C&I								
Docket 4436	245,845	418,267	428,715	400,996	349,014	1,842,837		
Docket 4520	308,423	428,725	483,350	418,720	380,974	2,020,192		
Difference	62,578	10,458	54,635	17,724	31,960	177,355		
% Difference	25.5%	2.5%	12.7%	4.4%	9.2%	9.6%		
Medium C&I								
Docket 4436	329,189	553,915	567,513	530,515	463,778	2,444,910		
Docket 4520	340,133	459,710	513,449	446,196	412,732	2,172,220		
Difference	10,944	(94,205)	(54,064)	(84,319)	(51,046)	(272,690)		
% Difference	3.3%	-17.0%	-9.5%	-15.9%	-11.0%	-11.2%		
Large LLF								
Docket 4436	72,302	131,721	135,348	127,030	107,681	574,082		
Docket 4520	78,569	109,552	123,635	107,067	97,242	516,065		
Difference	6,267	(22,169)	(11,713)	(19,963)	(10,439)	(58,017)		
% Difference	8.7%	-16.8%	-8.7%	-15.7%	-9.7%	-10.1%		
Large HLF								
Docket 4436	26,850	35,228	35,704	32,877	32,073	162,732		
Docket 4520	12,968	17,327	19,276	16,773	15,623	81,967		
Difference	(13,882)	(17,901)	(16,428)	(16,104)	(16,450)	(80,765)		
% Difference	-51.7%	-50.8%	-46.0%	-49.0%	-51.3%	-49.6%		
XL LLF								
Docket 4436	18,999	34,182	35,107	32,930	28,046	149,264		
Docket 4520	25,439	30,481	32,564	28,732	28,661	145,877		
Difference	6,440	(3,701)	(2,543)	(4,198)	615	(3,387)		
% Difference	33.9%	-10.8%	-7.2%	-12.7%	2.2%	-2.3%		
XL HLF								
Docket 4436	26,114	38,643	39,384	36,440	33,727	174,308		
Docket 4520	17,879	18,463	18,457	16,673	18,468	89,940		
Difference	(8,235)	(20,180)	(20,927)	(19,767)	(15,259)	(84,368)		
% Difference	-31.5%	-52.2%	-53.1%	-54.2%	-45.2%	-48.4%		
Total								
Docket 4436	2,707,600	4,628,267	4,744,711	4,438,875	3,856,400	20,375,853		
Docket 4520	3,059,478	4,175,967	4,679,662	4,062,157	3,735,653	19,712,917		
Difference	351,878	(452,300)	(65,049)	(376,718)	(120,747)	(662,936)		
% Difference	13.0%	-9.8%	-1.4%	-8.5%	-3.1%	-3.3%		

Docket No. 4520

Comparison of National Grid's Forecasted Normal Winter Sales Docket No. 4436 vs Docket No. 4520 - by Rate Class by Month

		Forecasted Normal Winter Sales							
	Nov	Dec	Jan	Feb	Mar	Nov - Mar			
Residential Non-Heating									
Docket 4436	48,298	78,202	111,021	119,337	79,602	436,460			
Docket 4520	45,060	82,938	115,737	119,268	108,822	471,825			
Difference	(3,238)	4,736	4,716	(69)	29,220	35,365			
% Difference	-6.7%	6.1%	4.2%	-0.1%	36.7%	8.1%			
Residential Heating									
Docket 4436	1,055,948	2,069,091	3,227,307	3,227,172	2,949,996	12,529,514			
Docket 4520	1,044,744	2,226,624	3,239,393	3,325,991	2,989,103	12,825,855			
Difference	(11,204)	157,533	12,086	98,819	39,107	296,341			
% Difference	-1.1%	7.6%	0.4%	3.1%	1.3%	2.4%			
Small C&I									
Docket 4436	124,881	233,848	444,412	414,368	376,672	1,594,181			
Docket 4520	111,656	291,880	477,466	499,885	438,170	1,819,057			
Difference	(13,225)	58,032	33,054	85,517	61,498	224,876			
% Difference	-10.6%	24.8%	7.4%	20.6%	16.3%	14.1%			
Medium C&I									
Docket 4436	186,170	370,627	562,298	543,651	458,524	2,121,270			
Docket 4520	168,278	348,704	483,327	511,636	462,400	1,974,345			
Difference	(17,892)	(21,923)	(78,971)	(32,015)	3,876	(146,925)			
% Difference	-9.6%	-5.9%	-14.0%	-5.9%	0.8%	-6.9%			
Large LLF									
Docket 4436	42,606	72,572	138,611	120,494	113,482	487,765			
Docket 4520	34,040	79,793	117,993	119,645	112,741	464,212			
Difference	(8,566)	7,221	(20,618)	(849)	(741)	(23,553)			
% Difference	-20.1%	10.0%	-14.9%	-0.7%	-0.7%	-4.8%			
Large HLF									
Docket 4436	19,549	27,341	33,329	30,838	40,345	151,402			
Docket 4520	11,489	10,927	15,622	24,096	12,656	74,790			
Difference	(8,060)	(16,414)	(17,707)	(6,742)	(27,689)	(76,612)			
% Difference	-41.2%	-60.0%	-53.1%	-21.9%	-68.6%	-50.6%			
XL LLF									
Docket 4436	8,471	12,152	23,873	49,595	33,144	127,235			
Docket 4520	10,538	26,053	35,502	35,280	30,836	138,209			
Difference	2,067	13,901	11,629	(14,315)	(2,308)	10,974			
% Difference	24.4%	114.4%	48.7%	-28.9%	-7.0%	8.6%			
XL HLF									
Docket 4436	20,026	32,330	36,581	33,631	34,199	156,767			
Docket 4520	12,198	10,051	18,078	30,213	19,422	89,962			
Difference	(7,828)	(22,279)	(18,503)	(3,418)	(14,777)	(66,805)			
% Difference	-39.1%	-68.9%	-50.6%	-10.2%	-43.2%	-42.6%			
Total									
Docket 4436	1,505,949	2,896,163	4,577,432	4,539,086	4,085,964	17,604,594			
Docket 4520	1,438,003	3,076,970	4,503,118	4,666,014	4,174,150	17,858,255			
Difference	(67,946)	180,807	(74,314)	126,928	88,186	253,661			
% Difference	-4.5%	6.2%	-1.6%	2.8%	2.2%	1.4%			

Docket No. 4520

Comparison of National Grid's Design Winter and Normal Winter Sales Forecasts by Rate Class by Month

	Forecasted Design Winter Sales 1/						Forecasted Normal Winter Sales 2/					
	Nov	Dec	Jan	Feb	Mar	Nov - Mar	Nov	Dec	Jan	Feb	Mar	Nov - Mar
Residential Non-Heating	82,450	108,645	120,286	104,840	98,469	514,690	45,060	82,938	115,737	119,268	108,822	471,825
Residential Heating	2,193,617	3,003,064	3,368,645	2,923,156	2,683,484	14,171,966	1,044,744	2,226,624	3,239,393	3,325,991	2,989,103	12,825,855
Small C&I Docket 4520	308,423	428,725	483,350	418,720	380,974	2,020,192	111,656	291,880	477,466	499,885	438,170	1,819,057
Medium C&I	340,133	459,710	513,449	446,196	412,732	2,172,220	168,278	348,704	483,327	511,636	462,400	1,974,345
Large LLF	78,569	109,552	123,635	107,067	97,242	516,065	34,040	79,793	117,993	119,645	112,741	464,212
Large HLF	12,968	17,327	19,276	16,773	15,623	81,967	11,489	10,927	15,622	24,096	12,656	74,790
Extra Large LLF	25,439	30,481	32,564	28,732	28,661	145,877	10,538	26,053	35,502	35,280	30,836	138,209
Extra Large HLF	17,879	18,463	18,457	16,673	18,468	89,940	12,198	10,051	18,078	30,213	19,422	89,962
Total	3,059,478	4,175,967	4,679,662	4,062,157	3,735,653	19,712,917	1,438,003	3,076,970	4,503,118	4,666,014	4,174,150	17,858,255
Total Low Load Factor 3/ Total High Load Factor 4/	2,946,181 113,297	4,031,532 144,435	4,521,643 158,019	3,923,871 138,286	3,603,093 132,560	19,026,320 686,597	1,369,256 68,747	2,973,054 103,916	4,353,681 149,437	4,492,437 173,577	4,033,250 140,900	17,221,678 636,577

Indicates Normal Winter Forecast exceeds Design Winter Forecast

^{1/} From Attachment AEL-1S, page 11 of 12.

^{2/} From Attachment AEL-1S, page 12 of 12.

^{3/} Low Load Factor Classes include: Residential Heating, Small S&I, Medium C&I, Large LLF, and Extra Large LLF.

^{4/} High Load Factor Classes include: Residential Non-Heating, Large HLF, and Extra Large HLF.

Docket No. 4520

Impact of Market Area Hedging and Customer Choice Program Changes on National Grid's Forecasted 2014-15 GCR Costs

	Attachment	Attachment	Change		
	AEL-1	AEL-1S	\$ %		
Fixed Costs Forecasted Fixed Costs	\$ 44,355,723	\$ 43,847,841	\$ (507,882) -1.15%		
Less Credits Plus Net Additions	\$ 9,959,938 1/ \$ (6,310,873)	\$ 9,927,180 1/ \$ (6,313,884)	\$ (32,758) -0.33% \$ (3,011) 0.05%		
Total Fixed Costs	\$ 28,084,912	\$ 27,606,777	\$ (478,135) -1.70%		
Variable Costs					
Forecasted Fixed Costs Less Credits	\$ 108,985,186 \$ -	\$ 110,123,564 \$ -	\$ 1,138,378		
Plus Net Additions Total Fixed Costs	\$ 38,570,404 \$ 147,555,590	\$ 38,577,152 \$ 148,700,716	\$ 6,748 0.02% \$ 1,145,126 0.78%		
Total Fixed and Variable Costs	\$ 175,640,502	\$ 176,307,493	\$ 666,991 0.38%		

^{1/} Includes \$7,060,474 of Deferred Fixed Cost Over-collections

^{2/} Includes \$36,091,594 of Deferred Variable Cost Under-collections